Joint MPH Program

University of Gondar and Addis Continental Institute of Public Health

Assessment of Family planning use and associated factors among people living with HIV/AIDS on follow up care in health centers of Addis Ababa, Ethiopia

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Abbreviations

A.A- Addis Ababa

AARHB- Addis Ababa Regional Health Bureau

ACIPH- Addis Continental Institute of Public Health

AIDS- Acquired Immune Deficiency Syndrome

AOR- Adjusted Odds Ratio

ART/ARV- Anti Retro viral Treatment

CI- Confidence Interval

COR- Crude Odds Ratio

CT- Counseling and Testing

FP- Family Planning

HIV- Human Immune Deficiency Virus

MTCT- Mother To Child Transmission

PLHIV- People Living with HIV

PMTCT- Prevention of Mother To Child Transmission

RH- Reproductive Health

SPSS- Statistical Package for Social Science

UNAIDS- United Nations program on HIV/AIDS

UOG- University Of Gondar

USAID- United States Agency for International Development

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Abstract

Background: Ethiopia belongs to the heavily affected countries of Sub-Saharan Africa by HIV/AIDS, at a prevalence rate of 2.4%, an estimated of 1,216,908 people living with HIV/AIDS in 2010. Besides the dominant heterosexual transmission, vertical virus transmission from mother to child accounts for more than 90% of pediatric AIDS.

Objective: The objective of this study was to assess family planning use and associated factors among people living with HIV/AIDS.

Methods: An institution based cross sectional study design was employed from October 2010 to May 2011. A multi stage sampling procedure was used to select study participants. 628 PLHIV were selected using systematic random sampling technique from 10 health centers, which was first selected using simple random sampling technique from 10 Sub – cities. Data were collected using pre tested, interviewer administered questionnaire, and it was double entered and cleaned using EPI info version 3.5.1, and analyzed using SPSS Version 16.0 computer soft ware.

Results: During the study time 266(43.5%) of the study participants were found to be using at least one method of FP, of which 238(89.4%) were using condom and 68(25.5%) were using injectables. Abstinence from sexual intercourse 197(54.2%) and desire for child 94(27.2%) were the major reasons mentioned for not using FP. Only 295(48.3%) of the study subjects had discussion about FP and child bearing with their service providers and most 130(48.8%) of current FP users were getting the service from FP unit. Educational status, number of alive children, time since diagnosis of HIV, having sex in the past 6 months and marital status shows statistically significant association with current family planning use ($P<0.01$)

Conclusion and recommendations: Above half of the respondents were not using FP during the study time, of which nearly half are sexually active. And most of the non users had no discussion about FP and child bearing with their service providers. So, adequate counseling and discussion regarding issues like FP, child bearing and sexuality with fully integrated FP service in the ARV units may help in maximizing the uptake of FP methods by PLHIV.

1. Introduction

The HIV/AIDS pandemic created heavy challenges to the survival of mankind worldwide. According to the UNAIDS report on AIDS epidemic, there are 33.4 million [31.1 million–35.8 million] people living with HIV in 2009 in which 31.3 million [29.2 million–33.7 million] are Adults (1). Ethiopia belongs to the heavily affected countries of Sub-Saharan Africa by HIV/AIDS, at a prevalence rate of 2.4%, an estimated of 1,216,908 people living with HIV/AIDS in 2010. The average urban prevalence being 7.7% is about eight times greater than the average rural prevalence, which is 0.9%. In 2010, an estimated of 210,306 people are living with HIV in Addis Ababa, the prevalence rate being 9.2%, and it is estimated that 7,091 children aged 0-14 years are living with HIV/AIDS in Addis Ababa (2-5). The majority of HIV/AIDS cases are in reproductive health group [15-49] which has great implication on sexual and reproductive matters (4). Besides the dominant heterosexual transmission, vertical virus transmission from mother to child accounts for more than 90% of pediatric AIDS (5).

The availability of anti-retroviral drugs for the prevention of mother to child transmission increased decision making ability to plan for future fertility. The desire to have children among HIV positive peoples is an implication of HIV transmission. Some of HIV infected peoples may be engaged in unprotected sex while attempting to have children (5, 6). Preventing unintended pregnancy among HIV-infected peoples could contribute significantly to prevent HIV infection in infants, yet this element of the strategy is often overlooked especially in sub-Saharan countries. Strengthening family planning programs, Providing reproductive health counseling and other related services to HIV-infected peoples that support their reproductive choices especially in high-prevalence settings and providing safe and effective contraceptive methods for HIV-infected peoples are best approaches of; preventing unintended pregnancies among PLHIV, and reducing the risk of new HIV infections among infants. (7).

The government of Ethiopia is undertaking an effort to mitigate the impacts of HIV epidemic in general population by integrating reproductive health services with HIV programs like integration of family planning service with HIV counseling and testing. But integrating full FP services into chronic HIV care/ART services is not in place (8).

In Studies conducted in Addis Ababa in 2006 & 2009, during the survey period, 246 (53.5percent) and 45.3percent of the respondents (PLHIV) were using different forms of FP respectively. The major reasons mentioned for not using contraceptive methods in the study conducted in 2009 were abstained from sexual intercourse (61.4 percent) and desire for child (14percent). These and other few studies conducted regarding this issue in Ethiopia provides evidence that a lot of work has to be done in identifying factors associated with FP use and maximizing utilization of FP by PLHIV (9, 10).

Thus information regarding FP use and associated factors among PLHIV will be important in understanding the different factors affecting the utilization of Family planning services. This will be important in turn for prevention of unintended pregnancy and vertical transmission of HIV from mother to the child.

Taking this into account, this study was designed to answer questions like the level of family planning use and factors associated with it among PLHIV. Understanding the effect of HIV infection and other associated factors on family planning use will be important to design appropriate strategies to address factors related to FP use among PLHIV and prevent transmission of HIV from mother to child including prevention of unintended pregnancy among HIV positive mothers by addressing the barriers for family planning use.

2. Literature review

2.1. HIV and RH

As the spread of HIV has spiraled into a pandemic, funds have poured into a vertically structured effort to combat the disease. As HIV is primarily a sexually transmitted disease, separating prevention, care, and treatment from the sexual and reproductive health context hampers long-term prevention efforts, and solutions to reproductive health issues related to HIV (11).

The rationale for integrating family planning/reproductive health (FP/RH) and HIV services, especially in high HIV prevalence settings, has long been apparent: Sexually active individuals are at risk of both unintended pregnancies and HIV. The integration of these two sets of services share the key intended health outcomes of prevention of new HIV infections and prevention of unintended pregnancies. Years of experience in reproductive health settings demonstrate that individuals make greater use of services if they are easy to access. Visits to a health facility represent costs to clients and health systems, and making the most of these visits can have enormous benefits in the uptake of services and efficient program operations (12).

A USAID-funded analysis examined the costs and benefits of adding family planning services to programs for the prevention of mother-to-child transmission of HIV (PMTCT). The findings suggest that adding family planning to PMTCT sites can save the lives of thousands of women and children and significantly reduce the number of orphans (11). One study shows that the annual number of unintended HIV-positive births currently averted by contraceptive use ranges from 178 in Guyana to over 120 000 in South Africa. The minimum annual cost savings to prevent just the unwanted HIV-positive births ranges from $26 000 in Vietnam to over $2.2 million in South Africa (13).

2.2 HIV and risky sexual behavior

About 70 percent of HIV infected women are sexually active indicating very high reproductive potential. Evidences on reproductive intentions of PLHIV following the introduction of ART and MTCT services are limited. Reproductive needs like; Desire to have sex and hence children have changed following improvement in their health condition. Unmarried and divorced ones would like to get married and have children. The demand for children is higher among this group compared to married PLWHA who have at least one child (14).

Significant people living with HIV are engaging in risky sexual behavior as clearly explained by Bolanle Oyebola, in a study conducted in Nigeria (15). Risky sexual behavior was also observed in peoples living with HIV in SNNP region in which factors such as taking alcohol and using substance like cigarette and/or khat were positively and significantly associated with it (16). A study on sexual behavior and level of awareness of reproductive health problem among young people in eastern Ethiopia found that among unmarried young men and women, the mean age at first sexual intercourse was 16.9 years for men and 18.0 years for women. While less than 10 percent of the unmarried females aged 14-17 had had sexual intercourse, over 20 percent of the unmarried male youth in the same age group had had sexual intercourse (17).

2.3. HIV, FP use and fertility intentions

The importance of family planning is sometimes forgotten in efforts to reduce mother-to-child transmission of HIV. However, with unintended pregnancies accounting for more than half of all births in some countries, contraception could prevent many vertical HIV transmissions. The use of family planning to prevent unintended pregnancies is the primary means of preventing mother-to-child transmission (11). Despite the potential contribution of FP to the prevention of HIV infection and transmission, contraceptive use in sub-Saharan Africa, including condom use, remains low. The most recent DHS data of Ethiopia indicates that the percentage of married

women aged 15-49 using any method of contraception is 15 percent and unmet need for FP remains high, with 34 percent. (18). In one study in Uganda, men were more likely than women to desire children in the presence of HIV and a six-fold decrease in desire for children in the presence of HIV was noted. This was also confirmed in a study in Nigeria, which also in addition showed a desire for multiple children by men who were newly diagnosed and who had not disclosed their status (11).

A USA study of 2864 people living with HIV showed that 59 percent of males expected to have a child in the future, but 20 percent of their female partners were not in agreement. Yet when men and women with HIV are compared to HIV-negative groups, relatively lower fertility desires are reported (19). In a cohort study conducted in Swiss, 73 percent condom use was noted and 45 percent of HIV positive women and 38 percent of HIV-positive men expressed the desire for children. Irrespective of this wish, half the study participants felt that health care providers would not sufficiently address their concerns regarding relationship, sexuality and fertility intentions (20). A study conducted on five African countries on FP and HIV service integrations shows that there is less unmet need for FP methods in HIV care and treatment units compared to other HIV service provision units like CT. Among the reasons mentioned about this is due to the high proportion of women who reported no need of FP because they are not sexually active, as well as some who wish to become pregnant or desired their current pregnancy. But a higher percentage of women in HIV Care and Treatment used a modern contraceptive method compared with women in CT (21).

85 respondents (25.1percent) were using different methods of family planning at the time of the study in a survey conducted in northern Nigeria. Of these, 65(19.4 percent) used condoms, while 8(2.4percent) used oral contraceptive pills and only 2(0.6percent) practiced abstinence (22). In a prospective cohort study in Uganda, Only 14 percent of women used permanent or semi-permanent family planning methods by their second year on ART and less than 7 percent

of women reported wanting more children at any time point yet, 120 (16.9 percent) women experienced 140 pregnancies and pregnancy incidence increased from 3.46 per 100 women-years (WY) in the first quarter to 9.5 per 100 WY at 24 months ($p<0.0001$) (23). A study conducted in a densely settled urban slum area in Nairobi, Kenya reveals that there was a significant demand by HIV-positive women for family planning in general, and condoms in particular. Yet side effects are identified as the most important reason why women in these communities may not use contraceptives even if they do not want to become pregnant (24).

Few studies conducted regarding this issue in Ethiopia indicate that significant number of individuals living with HIV has a desire to have children and FP use is not as much due to different reasons. This is noted on a study conducted in Nazareth where close to 39 percent (168/460) respondents were using at least one birth control methods. Condom use was the major family planning method utilized 53 percent (90/168) followed by injectables. Overall 46.5 percent (214/460) of the study subjects reported that they want to have children of which female accounted for 42 percent (122/290) and males 54 percent (92/170) (25).

In addition a study conducted in southern region of Ethiopia shows that 70.4 percent of the study population had ever used at least one method of contraception during the study time, while 53.4 percent wanted to use at least one method in the future. Condom and injectables are the most commonly used methods of contraception in the past and preferred method to be used in the future (14). In a study conducted in Addis Ababa on 2006, during the survey period, 246 (53.5percent) of the respondents were using different forms of FP and the most preferred method of FP was condom and injectables72.9percent & 21.2 percent respectively. Among those who were not using FP method during the survey period 85(39.7percent) wants to use FP in the future (9).

Among the reasons mentioned for not having a need for contraceptive methods in the study conducted in SNNPR includes fear of side effects with ART drugs (3.7percent), wants more child (2.2percent) and partner disagreement (1.3percent) (14).

Generally, little information exists which shows the magnitude of family planning use, preferences of family planning methods of PLHIV and factors associated with utilization of FP methods by PLHIV in Addis Ababa. So this study was designed to obtain these and other related information.

3. Objectives

3.1. General Objective:

- To assess family planning use and associated factors among people living with HIV/AIDS on follow up care in health centers of Addis Ababa.

3.2. Specific Objectives:

- To determine the level of family planning use and
- To identify factors associated with family planning use among people living with HIV/AIDS on follow up care in health centers of Addis Ababa.

4. Methodology

4.1. Study setting

The study was conducted in selected health centres of Addis Ababa city Administration from October 2010 to May 2011. According to Central statistical Agency in 2007 there are 2,738,248 peoples who live in Addis Ababa (26). Addis Ababa health bureau and FMOH are responsible for managing both curative and preventive health care services of the city. A total of 38 Hospitals exist in the city among which 5 are under AARHB, 5 under Federal ministry of Health, 2 under NGO's, 3 are Defense and Police Hospitals and 23 are Private Hospitals. There are 27 health centers of which 24 are owned by the city administration, 2 by NGO's and 1 by the public.

4.2. Study Design

An institution based cross-sectional study design was carried out in ARV units of selected health centres

4.3. Source population

The source populations were all people living with HIV/AIDS who are on follow up care in health centres of Addis Ababa city administration.

4.4. Study population

The study populations were selected subjects from the source population who fulfil the inclusion criteria.

Inclusion criteria

Reproductive age group (18-49 years for women and 18 - 59 years of men) of PLHIV who had at least 2 visits in ART units of selected health centres during the study period.

Generally the standard for reproductive age group is 15-49 years but since age groups 15-17 cannot give consent by themselves and the topic is sensitive, reproductive age groups (18-49 years for women and 18 - 59 years of men) were included as study subjects for this study.

Exclusion criteria

All people living with HIV/AIDS, who are unable to hear, mentally retarded and seriously ill were excluded from the study population.

4.5. Sample size

The sample size for this study was 628. This is determined using single proportion formula for the first objective and by using two population proportion formula for the second objective using stat calc program of Epi info software version 3.5.1. A recent study conducted in Addis Ababa in 2009 on similar issue is used to calculate the sample size for both objectives (10) (see Table 1).

4.6. Sampling procedure

A multi-stage sampling technique was employed. There are 10 sub-cities in AddisAbaba. 2-4 health centres are found in each sub-city. Since the results of the study may differ along with sub-cities, one health centre was selected randomly from each sub-city to ensure representation of each sub-city. These selected Health centers were primary sampling units.The calculated sample size was used to recruit study subjects from the selected health centres' ARV units proportional to the units' client size. The daily average number of client visit in each selected ARV units was obtained using client registration book prior to data collection. Systematic random sampling was used to select study subjects. A 2 month number of client load in November and December in selected health centres of ARV units (N) was 6086 and used to calculate the sampling interval (K) by dividing to the sample size of the study (n) i.e. 628.

This was by assuming the client flow in November and December will be similar with the client flow during the 2 month data collection period (January and February). The first client was selected randomly then every 9th client (based on the calculated sampling interval) was selected as study subjects. These subjects were secondary sampling units.

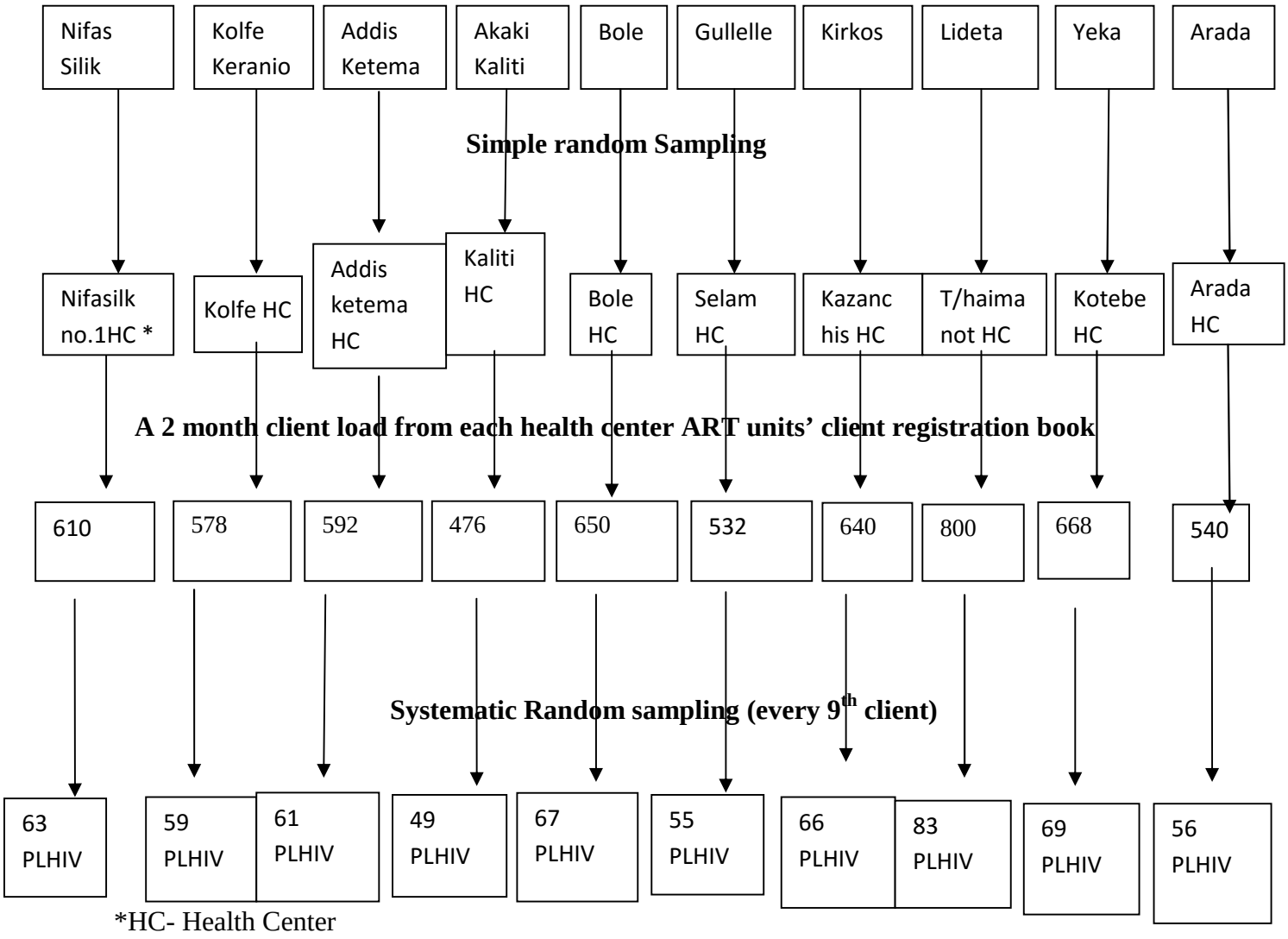
Table 1: Summary of sample size calculation used for the study, A.A, 2010

<table>
<tr><th>Objective</th><th colspan="5">Sample size formula</th><th>Sample size</th></tr>
<tr><td>1.Determination of prevalence of FP use among people living with HIV/AIDS</td><td colspan="5">Single proportion formula $n = \frac{Z(\alpha/2)^2 * P(1-p)}{d^2}$

P= 45.3%, prevalence of FP use among people living with HIV/AIDS from a recent study in Addis Ababa in 2009(10).
Z (α/2) = Z score at 95% CI =1.96
d = margin of error = 5%
Design effect of 1.5
Non – response rate = 10%</td><td>628</td></tr>
<tr><td>2.Identify factors associated with FP use among peoples living
with HIV/AIDS</td><td colspan="6">Two population proportion formula using stat calc of Epi info software version 3.5.1

By taking sex in the last six month as a factor associated with FP use, i.e. not having sex in the last six month as exposure (79.4%) and having sex in the last six month as non exposure (29.7%) for not using FP from a recent study conducted in Addis Ababa in 2009(10). Assuming 95% confidence interval and a power of 80%</td></tr>
<tr><td></td><td>Ratio of Non exposed: exposed</td><td>Sample of non exposed</td><td>Sample of exposed</td><td>Total</td><td colspan="2">Total with Design effect of 1.5 and non response rate of 10%</td></tr>
<tr><td></td><td>1:1</td><td>19</td><td>19</td><td>38</td><td colspan="2">63</td></tr>
<tr><td></td><td>4:1</td><td>44</td><td>11</td><td>55</td><td colspan="2">92</td></tr>
<tr><td></td><td>3:1</td><td>36</td><td>12</td><td>48</td><td colspan="2">80</td></tr>
<tr><td></td><td>1:4</td><td>11</td><td>44</td><td>55</td><td colspan="2">92</td></tr>
</table>

So the highest sample size i.e. 628 was taken for this particular study.



*HC- Health Center

Fig.1. Diagrammatic presentation of the sampling procedure used for the study.

4.7. Data collection procedures and instruments

A structured questionnaire was used for the study. First the questionnaire was prepared in English and then translated in to Amharic. The Amharic version was back translated to English by colleagues who have MPH, to check for consistency and ensure the quality of translation.

Pre-testing the questionnaire

The structured questionnaire was pre tested in 5% of the sample size of PLHIV in Lideta health center, which was not among the selected health centers, by the providers working in the ARV unit and the necessary modifications was made.

Data collection

Data collection was done from January 2011 to February 2011. Ten data collectors (health officers and nurses) were recruited from the selected ARV units based on their experience in the units and knowledge on the area of research topic. Two days training was given on the objectives, rationale, contents, ethical consideration and on the techniques of the interview. The principal investigator was responsible in supervising the data collectors.

Variables

The independent variables include:

Socio demographic characteristics (age, sex, marital status, education, religion, occupation, ethnicity…)

Number of Alive children

Partners' HIV status

Duration since HIV diagnosis

Duration since initiation of ART

Sex in the past 6 months

Discussion about FP and Child bearing with service providers

Dependent variable

Current FP use of PLHIV

4.8. Data Quality assurance

Data were collected using a pre-tested and structured questionnaire. Training was given for data collectors and frequent supervision was made. Data was checked for completeness and consistency every day during the data collection period. Data that are only complete are double entered, by two different data clerks, to EPI info 2000 version 3.5.1 software to check for consistency and validity. Data was validated by comparing the two entries using Epi info software version 3.5.1. And inconsistencies were cleaned by going back to the originally field collected data or questionnaire.

4.9. Data Analysis

The cleaned data was exported into SPSS version 16.0 window soft ware program for analysis**.** Using this software univariate analysis was employed, descriptive statistics, frequency distributions such as percentages, proportions and ratios were computed for different variables. Bivariate analysis was also performed to see if there is any association between two variables, this was done for all independent variables with the dependent variable i.e. current FP use. To identify factors associated with current FP use multivariate analysis logistic regression was employed which is possible to control the confounding effects variables.

4.10. Operational definition

Current FP use: use of one of the family planning methods for the purpose of spacing or limiting the size of the family at the time of data collection.

Duration since HIV diagnosis: the number of days, months or years since the respondent diagnosed with HIV.

Duration since initiation of ART: the number of days, months or years since the respondent started taking ART.

Fertility desire: the need to have a child in the future.

Number of Alive children: the number of children who are Alive at the time of study.

Partners' HIV status: the HIV status of the respondents' partner.

PLHIV on ARV follow up care: are those people living with HIV who had at least two visits to the selected ARV unit in one of the selected health facilities, for care and support, who may or may not started taking ART

Sexually active: are those who had sexual intercourse in the past 6 months.

4.11. Ethical clearance and consideration

Ethical clearance was obtained from review committee of University of Gondar and Addis Ababa Regional Health bureau. A formal letter was written to selected health centers from Addis Ababa Regional Health bureau. In order to maintain privacy and avoid fear of stigmatization, health professionals working in ARV units who already know the sero -status of the clients was recruited as data collectors. Training was given for each data collector on how to obtain consent and maintain confidentiality and privacy. The data collector assures that the interview is private, confidential and the information collected will be used only for research purpose. Each data collector also told every study subjects that their name will not be written on the questionnaire, their participation is voluntary and they have the full right to refuse to take part in or interrupt the interview at any time. This and other information like purpose of the study was included in the consent form and attached in each questionnaire. After each data collector explain the purpose of the study, maintain privacy and confidentiality, study subjects were asked for their willingness to participate in the study. Only those who are willing to participate signed the written consent and included in the study.

5. Result

5.1. Socio- demographic characteristics of the study population (see Table 2)

In this study a total of 628 eligible clients of reproductive age group (women 18-49 years & men 18-59 years) were identified for the study from 10 health centers of Addis Ababa, out of which 611 were interviewed and completely respond to the questions with response rate of 97.3 %.

Of the total respondents 421 (68.9%) were females and 190 (31.1%) were males. The age range of the study subjects were 19-53 years with a median age of 32 years and a standard deviation of 6.9, and 326 (53.4%) were in the age group of 26-35 years. Above half 321 (52.5%) of the respondents were married, while 95(15.5%) were divorced. The majority, 437(71.5%) were Orthodox followers while 109(17.8%) were Muslims and 65(10.7%) were from other religion group. Regarding ethnic composition, Amhara Constituted 280(45.8%), Oromo 180(29.5%), Tigre 94(15.4%) Guraghe 35(5.7%) and others were 22(3.6%).

Of all the respondents who participated in the study, majority 235(38.5%) and 193(31.6%) had elementary and high school level of education respectively.

As shown in Table 2, most 137(22.4%) were daily laborers and 295(48.3%) of the subjects had monthly income of less than 300ETB.

About 207 (33.9%) of study participants had no children currently and the rest 404(66.1%) had at least one. Four hundred forty nine (73.5%) of the respondent had duration of greater than 12 months since HIV diagnosis was done, of these 422(69.1%) of the respondents were on ARV treatment (see Table 2).

Table 2: Socio –demographic characteristics of PLHIV in ARV follow up care units, A.A, June 2011

Socio-demographic characteristics		Number (%)
Sex	Male	190(31.1)
	Female	421(68.9)
Age	18-25	68(11.1)
	26 -35	326(53.4)
	36 and above	217(35.5)
	Mean ±SD	33.6± 6.9
Religion	Orthodox	437(71.5)
	Muslim	109(17.8)
	Others	65(10.7)
Ethnicity	Oromo	180(29.5)
	Amhara	280(45.8)
	Tigre	94(15.4)
	Guraghe	35(5.7)
	Other	22(3.6)
Marital status	Single	81(13.3)
	Non-married partner	40(6.5)
	Married	321(52.5)
	Widowed	74(12.1)
	Divorced	95(15.5)
Education	Unable to read and write	82(13.4)
	Able to Read and write	67(11)
	Elementary	235(38.5)
	High school	193(31.6)
	College and above	34(5.6)
No. of Alive children	None	207(33.9)
	1-2	316(51.7)
	Above 2	88(14.4)
Monthly Income	1-300 birr	295(48.3)
	301- 600 birr	154(25.2)
	600 – 1000birr	117(19.1)
	Above 1000 birr	45(7.4)
Time since diagnosis with HIV	<6 months	79(12.9)
	6-12 months	83(13.6)
	>12 months	449(73.5)
	Mean ± SD	28.21± 20.04
Have you started ARV treatment?	Yes	422(69.1)
	No	189(30.9)
Time since ARV treatment(n=422)	<6 months	73(17.3)
	6-12 months	72(17)
	>12 months	278(65.7)
	Mean ± SD	22.18 ±15.19
Total		611(100)

5.2. Family planning use

As indicated in Table 3 below, above half 343 (56.1%) and 468(76.6%) of the study participants ever used at least one method of contraception before and after HIV diagnosis, respectively. Injectables and oral contraceptive pills were the most commonly used methods used by 180(52.5%) and 106(30.9%) study participants before HIV diagnosis respectively. While condom 258(55.1%) was the most commonly used method after HIV diagnosis.

Currently among all respondents 266(43.5%, with 95% CI of 39.6% and 47.5%) of the study participants are using at least one method of Family planning, of which 238(89.4%) are using condom and 68(25.5%) are using injectables. Four hundred fourteen (67.8%) of the respondents were sexually active and of these 258(62.3%) were using one type FP.

Thirty four (9.9%), seventy one (15.1%) and seventy seven (16.9%) of the respondents were using condom with other type of family planning method before HIV diagnosis, after HIV diagnosis and currently respectively (see Table 3).

As shown in Table 4 below, the common reason for current method of contraceptive choice was health professional advice 197(74.3%) and method suitability to health 59(22.2%). One hundred twenty eight (48.3%) and ninety eight (36.9%) of current family planning users were getting the service from Family planning and ARV treatment units respectively. But 182(68.6%) of current users prefer to get FP service from ARV treatment units (see Table 4).

Table 3: Distribution of FP use by, method before and after HIV diagnosis among PLHIV in health centers of A.A, June 2011

FP use (n=611)	Ever use of FP before HIV diagnosis	Ever use of FP after HIV diagnosis	Current FP use
	No (%)	No (%)	No (%)
Yes	343(56.1)	468(76.6)	266(43.5)
No	263(43.1)	143(23.4)	345(56.5)
I don't remember	5(0.8)	0	0
Type of FP method used	Before HIV diagnosis	After HIV diagnosis	Current FP use
	No (%)	No (%)	No (%)
Condom	87(25.4)	258(55.1)	238(52.5)
Injectables	180(52.5)	102(21.8)	68(25.5)
Pills	106(30.9)	32(6.8)	19(7.1)
Implant	5(1.5)	10(2.1)	11(4.1)
Abstinence	6(1.7)	136(29.1)	6(2.25)
Others	3(0.9)	4(0.8)	2(0.7)
Condom with other type of FP method	34(9.9)	71(15.1)	77(28.9)
	Current FP use		
Sex in the last 6month	Yes No. (%)	No No. (%)	Total
Yes	258(62.3)	156(37.7)	414(100)
No	8(4.1)	189(95.9)	197 (100)

Table 4: Reason for current FP method choice, actual and preferred place for obtaining FP service by PLHIV in follow up care units, A.A, June 2011

Characteristics (n=265)	Number (percent)
Reason for current method of contraceptive choice	
Health professional advice	197(74.3)
Suitable to my health	59(22.2)
From my friends experience and advice	4(1.5)
Others	5(1.9)
Actual room/unit of obtaining current FP method	
ARV unit	98(36.9)
FP unit	128(48.3)
Private pharmacy	27(10.1)
Other units	12(4.5)
Preferred room/unit for obtaining FP method	
ARV unit	182(68.6)
FP unit	68(25.6)
Private pharmacy	5(1.9)
Other units	10(3.8)

As shown in the figure below, the major reasons mentioned for not using FP currently were: abstained from sexual intercourse 187(54.2%), desire for child 94(27.2%) and 'my religion doesn't allow using'31(8.9%). Among current non-users 60.8% want to use family planning in the future and the most common contraceptive methods mentioned for future use were injectables (56.2%) and condom (56.2%).

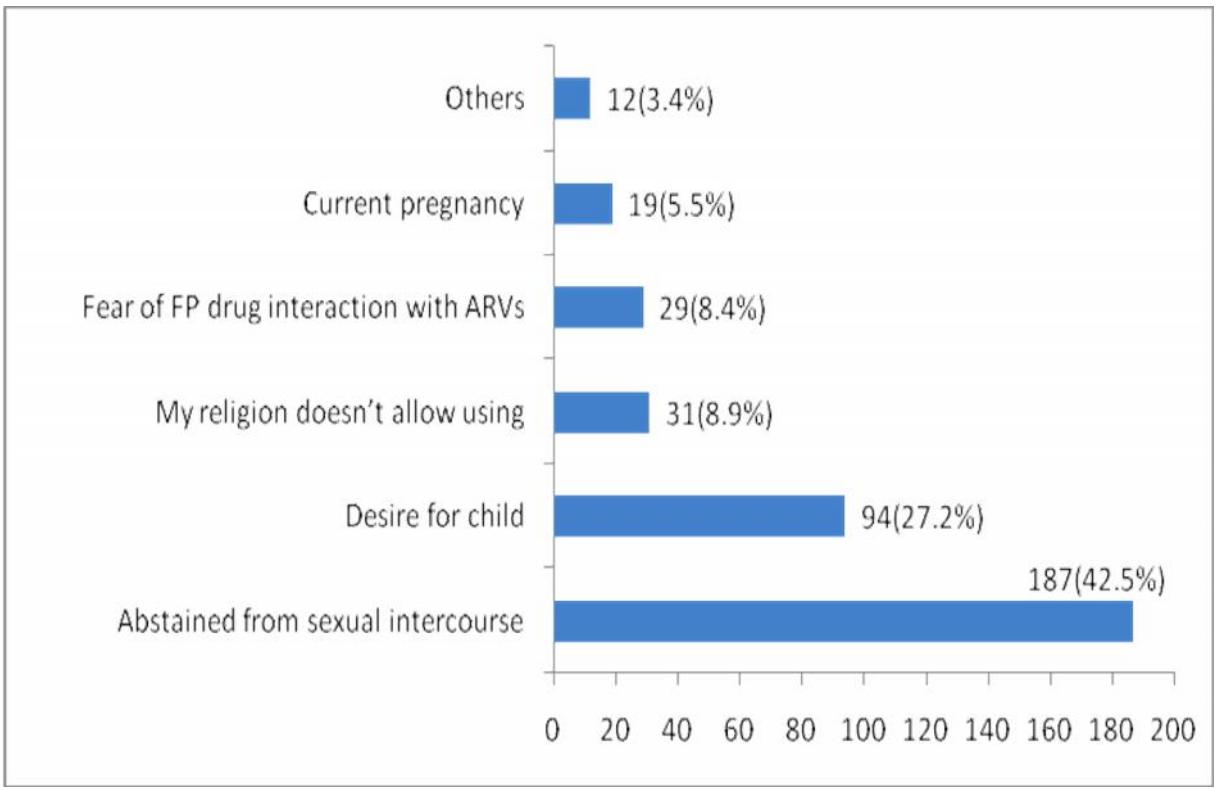


Fig.2. Reasons mentioned by PLHIV's in ARV follow up care unit, for not using FP currently, A.A, June 2011

5.3. Mother to child transmission (MTCT) of HIV

As shown in Table 5 below, most 554(90.7%) of the study participants know the transmission of HIV from the mother to the child. Of the 554 participants, only 178(32.1%) mention all the timings (during pregnancy, delivery and breast feeding) of mother to child transmission of HIV.

Again from these 554 participants 526(94.4%) know the presence of medication which may help to prevent MTCT of HIV. Among all the respondents 104(17%) experienced pregnancy after they know their status and 19(3.1%) are pregnant currently

During their follow up only 295(48.3%) of the study subjects had discussion about FP and child bearing with ART service providers and out of those who had discussion, 227 (76.9%) had perceived adequate counseling regarding issues like FP, sexuality and child bearing(see Table 5 below).

Table 5: Knowledge on MTCT of PLHIV in ARV follow up care units, A.A, June 2011

Characteristics	Number (%)
Does HIV transmit from the mother to the child? (n=611)	
Yes	554(90.7)
No	23(3.8)
Don't know	34(5.6)
When does HIV transmit from the mother to the child? (n=554)	
During pregnancy	356(64.3)
During delivery	341(61.6)
During breast feeding	409(73.8)
Don't know	16(2.9)
Did your ART/care provider discuss about child bearing and FP?(n=611)	
Yes	295(48.3)
No	316(51.7)
Did your ART/ care provider adequately cover issues like child bearing, sexuality and FP? (n=295)	
Yes	227(76.9)
No	68(23.1)

5.4. Factors associated with current family planning use of PLHIV

In this survey respondents were asked different questions to assess factors that determine their current family planning use.

In the Bi- variate analysis (Table 6), educational status, number of alive children, duration since diagnosis of HIV and starting of ARV treatment were significantly and positively associated with family planning use ($p<0.01$) and Current marital status showed significant but negative association with current family planning use($p<0.05$). But sex, age, religion, partner's HIV status and income were not associated with Current FP use.

Questions like Does HIV transmit from the mother to child? Did your ART provider discuss about FP and child bearing with you? Have you had sexual intercourse in the past 6 months? Were asked and those who answered yes were more likely to use FP than those who answer No ($P<0.01$) (see Table 6).

Factors which were significantly associated with current family planning use in the Bi variate analysis were entered in to a multivariate logistic regression model to assess the effect of each predictor on current family planning use when the other factors are controlled. And the result showed that educational status, number of alive children, time since diagnosis of HIV, having sex in the last 6 month and marital status showed significant association with current family planning use ($P<0.01$) (see Table 6).

In this multivariate analysis, those who had high school and above level of education were two times more likely to use FP than those who had no formal education. [AOR: 2.65, 95%CI: 1.42, 4.95]. Compared to those study subjects who had no alive children, those who had one and above found to have a twofold increase to use FP. The result also showed that respondents with above one year duration since HIV diagnosis were three times more likely to use FP compared to those with less than six month duration [AOR: 3.27, 95%CI: 1.53, 6.99]. Those who are singles and non married partners also found to have a two and fourfold increase in using FP

compared to married ones respectively. [AOR: 2.75, 95%CI: 1.29, 5.85 and AOR: 4.23, 95%CI: 1.76, 10.14 respectively]. On the other hand, those who had sex in the past 6 months showed sixtyfold increase to use FP [AOR: 59.796, 95%CI: 25.06, 142.67] (See table 6 below).

Table 6: Association of current FP use with selected factors of PLHIV who are in ARV follow up care units in health centers of Addis Ababa, June 2011

Selected factors	FP use(n=611)		Crude odds ratio(95% CI)	Adjusted odds ratio(95% CI)
	Yes No (%)	No No (%)		
Marital status				
Married	187(58.3)	134(41.7)	1	1
Single	30(37.0)	51(63)	0.422(0.25,0.69)	2.753(1.29, 5.85)**
Widowed & divorced	25(14.8)	144(85.2)	0.124(0.077,0.20)	0.668(.32, 1.36)
Non married partner	24(60)	16(40)	1.075(0.550, 2.1)	4.236(1.76, 10.14)**
Educational status				
No formal education	44(29.5)	105(70.5)	1	1
Elementary	99(42.1)	136(57.9)	1.737(1.122,2.68)	1.485(.811, 2.717)
High school and above	123(54.2)	104(45.8)	2.82(1.821,4.375)	2.655(1.42, 4.95)**
No. of alive children				
None	60(29.0)	147(71.0)	1	1
1-2	162(51.3)	154(48.7)	2.577(1.776,3.74)	7.951(4.64, 13.60)**
Above 2	44(50.0)	44(50.0)	2.45(1.465,4.09)	11.276(4.97, 25.54)**
Time since HIV diagnosis				
<6 months	18(22.8)	61(77.2)	1	1
6-12months	39(47.0)	44(53.0)	3.004(1.52,5.92)	2.287(.92, 5.67)
>12 months	209(46.5)	240(53.5)	2.951(1.69,5.153)	3.275(1.53, 6.99)**
Sex in the last 6 mo.?				
Yes	258(62.3)	156(37.7)	39.072(18.7,81.5)	59.796(25.1, 142.6)**
No	8(4.1)	189(95.9)	1	1
HIV transmits from the mother to child?				
No and I don't know	17(29.8)	40(70.2)	1	1
Yes	249(44.9)	305(55.1)	1.921(1.063,3.471)	2.194(.981, 4.9)
Discussion about FP				
No	107(33.9)	209(66.1)	1	1
Yes	259(53.9)	136(46.1)	2.28(1.647,3.166)	1.541(.966, 2.458)

*Marital status, Educational status, No. of alive children, Duration since HIV diagnosis, Sex in the last 6 months, Does HIV transmit from the mother to child?, Discussion about FP were the variables entered into the model

** (P<0.01) factors that show significant association with current family planning use

6. Discussion

This section will discuss the implication of the results presented in the result section of the Thesis. First the finding of descriptive analysis will be discussed in reference to possible explanation of the finding and their relationships with previous theory or researches. Next the strength and limitations of the study will be reviewed.

According to the result from present study the level of current family planning use is high compared to study conducted in Nigeria and Uganda, in which 25.1percent respondents and 14 percent of women were using different methods of family planning at the time of the study (22, 23). This difference could be due to the socio cultural differences between the countries and methodology used for the study.

The results are similar with a study conducted in Addis Ababa in 2009 but lower than studies conducted in Addis Ababa, in 2006 and SNNPR in which 45.3%, 53.5% and 70.4% of the study participants were using different forms of FP respectively (9, 10, 16). Higher level of FP use is noted in this study compared to a study conducted in Nazareth, in which close to 39 of the study population had ever used at least one method of contraception during the study time (25). Again this difference could be the difference in study subjects and the methodology used for the studies.

Among current non users in this study, abstinence from sexual intercourse was the major reason mentioned for not using FP currently. Majority of those who are divorced & widowed, and those who are above 35 years of age mentioned this reason for not using family planning currently. This might be due to as the age goes up sexual activity will decline and they may not need contraception. Since most of those who are divorced and widowed in this study were not sexually active they will also have no need for contraception

This reason was similarly mentioned in one study conducted in Addis Ababa in 2009, in which 61.4 and 14percent of the study participants mentioned abstinence from sexual intercourse and desire for child as a reason for not using FP at the time of the study (10).

In this study, Most current family planning users were getting the service from Family planning unit and only 99(37.2%) are getting the service from ARV treatment units. But most current users prefer to get FP service from ARV treatment units. This shows that unavailability of full FP services in ARV units contribute for high number of current non-users. It is evident that use of family planning to prevent unintended pregnancies is the primary means of preventing mother-to-child transmission of HIV, so strong integration of FP service into chronic care/ART and other services may work best to increase uptake of FP methods by PLHIV (11).

During their follow up only below half of the study subjects had discussion about FP and child bearing with their service providers and this might contribute for low knowledge on MTCT of HIV in which, only 178(32.1%) mention all the timings (during pregnancy, delivery and breast feeding) of Mother to child transmission of HIV. This is supported by the result in this study, in which more than hundred respondents experienced pregnancy after they know their sero status and some were pregnant at the time of the study. This study also showed that among sexually active non users majority mentioned desire for child as a reason for not using, and above half of them had no discussion about FP and child bearing with their service providers. Again these all contributes for the low level of current family planning use.

Since those who are not adequately counseled about FP and child bearing may not use FP methods, they may engage in unprotected sexual intercourse and contribute to more unintended pregnancies. One study showed that nearly half of the 1.2 million youth ages 15 to 24 who become infected with HIV each year do not have accurate and complete information about preventing unintended pregnancy or HIV (12).

The findings of this study showed that educational status, number of alive children, time since HIV diagnosis, having sex in the past 6 months and marital status were significantly associated with current family planning use (P<0.01).

Educational status of respondents has contributed to current FP use among PLHIV. In this study those who had high school and above level of education were two times more likely to use FP than those who had no formal education. Above one year duration since HIV diagnosis was also another associated factor for current use of FP method among study subjects. Accordingly in this study respondents with above one year duration since HIV diagnosis were three times more likely to use FP compared to those with less than six month duration. This is due to the fact that those who are more educated and had duration more than a year since HIV diagnosis will have better exposure and understanding of information regarding FP, sexuality and child bearing.

Number of alive children is also identified as an important factor influencing current FP use of PLHIV. Compared to those participants who had no children, those who had one or two children and more than two children found to have a twofold increase for current FP use. This shows that fertility desire is more common on those who had no alive children, and it is also shown in this study that most sexually active current non- users mentioned desire for child as a reason for not using FP. This is also shown in studies conducted in Brazil and Uganda in which Desire for parenthood was more frequent among both childless men & women and having an increased number of live births were significantly associated with a decreased odds of fertility desire respectively(27, 28)

In this study, having sex in the past 6 months was found to be a predictor for current family planning use among PLHIV. This was similarly shown on a study conducted in Addis Ababa (10).

On the other hand, those who are singles and non married partner found to have a two and fourfold increase in using FP compared to married ones respectively. This may be due to that

married ones are living together and may need to have children compared to those singles and non married partners. This was also noted in study conducted in Uganda in which being married was identified as significantly associated factor to an increased fertility desire and pregnancy (28). In a study conducted in Nigeria, unmarried and divorced ones showed their intention to get married and have children (29).

Strength of the study- since the study used primary data with the help of pre tested & structured questionnaire and the data were double entered and inconsistencies were cleaned using EPI info software, as a result the validity of the study could be maintained. So these all could be taken as strength of the study.

Limitation of the study

1. **Social desirability bias -** health professionals in the selected ARV units were trained and recruited as a data collector to ensure confidentiality of the study subjects. Even though the health professionals were trained appropriately on confidentiality, respondent's right and also the data collectors explained well to the respondents that the study has no link with the service provided, to minimize social desirability bias, the respondents may still provide desired answers. Therefore social desirability bias may not be totally avoidable in this study.

2. **Sample size** - Since sample size calculated for the second objective of the study examines only one factor, sample taken for this study may not be adequate to explore for all possible variables which may be associated with FP use.

7. Conclusion

- The level of current FP use in this study is below half, 45.3% with 95% CI (39.6%, 47.5%), and above thirty percent of sexually active respondents in ARV follow up care units were not using any type of FP method.

- Most current FP users were getting the service from FP unit and only condom is available on ARV treatment units.

- Desire for child was the major reason mentioned for not using FP currently by sexually active non users, of which most of them had no discussion about FP and child bearing with their service providers.

- Educational status, number of alive children, time since HIV diagnosis, having sex in the last 6 month and marital status shows statistically significant association with current family planning use ($P<0.01$).

8. Recommendation

For health professionals

- Adequate counseling and discussion regarding issues like family planning, child bearing and sexuality should be given.

For policy makers and higher officials

- Full integration of FP service in the ARV treatment units should be in place.

➢ The above recommendations could be one and cost effective approaches to increase the level of FP use and thereby decreasing the number of unintended pregnancies, and the new incidence of infant HIV infection.

For researchers

- Further studies, especially qualitative studies, should be conducted in the same and different setup in different parts of the country, and the issue should also need to be assessed from different community group's perspectives i.e. health care service providers, policy makers, community leaders in order to understand the factors associated with FP use in a better way and design interventional activities accordingly.

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Annexes

Annex: 1 English version consent form and questionnaire

Consent form

Introduction: greet the client and introduce yourself.

My name is…….., I am working with the research team of Addis continental institute of public health. Here at…… health center ART unit we are interviewing PLHIV who are on follow up care to assess their FP use and factors associated with it. We believe that this study will help to bring change in the utilization and service provision of FP for PLHIV.

We would like to ensure that the interview is private and confidential. Your name will not be mentioned in the questionnaire and the information you will give us will be used only for research purpose. Your participation is voluntary and you have the full right to refuse to take part in or interrupt the interview at any time, but the information you will give us is quite important to achieve the objectives of the study and to bring change in the utilization and service provision of FP for PLHIV.

So, are you willing to participate in this study?

1. Yes 2. No

If the answer is yes, thanks and ask the client to sign for written consent below and then conduct the study.

This is to confirm that after the interviewer explains about the purpose of the study, the confidentiality and the privacy about the data to be collected, I have voluntarily agreed to participate in this study by providing the necessary information during the interview. Signature of the client for the written consent. (After the interviewer reads the above note for the client.)

Signature……

If the answer is No, thank the client and go to the next client. Do not force or reinforce an individual to participate in the interview.

Interview's code……. Interviewer name…….. Signature…….

Date of interview ……...Supervisors name……. signature ……..

Checked on…….

For further information contact the principal investigator with the following address:

Tariku Birhanu: Tel. 0911770207, P.o.Box -180056, A.A. Ethiopia, E-mail- tarikutayris@yahoo.com

Structured questionnaire

Structured questionnaire on FP use and associated factors among PLHIV in health centers of Addis Ababa

Part – I: information regarding Socio demographic characteristics

No.	Questions	Categories
101	How old are you?	…….. Years
102	Sex	Male……..1 Female……...2
103	What is your religion?	Orthodox…….. 1 Muslim…… 2 Protestant…….. 3 Catholic…… 4 Other (specify)……89
104	Educational level	Able to read and write…….. 1 Unable to read and write…… 2 Elementary school……..3 High school……4 College and above……5 Other (specify)……89
105	What is your ethnic group?	Oromo …….. 1 Amhara …… 2 Gurage …….. 3 Tigre …… 4 Other (specify)……89
106	What is your current marital status?	Married …….. 1 Single …… 2 Widowed …….. 3 Divorced …… 4 Non married partner……5 Other (specify)……89
107	What is your current occupation?	Un employed …….. 1 Student …….. 2 House wife …….. 3 Daily laborer …… 4 Merchant ……5 Sex worker……..….. 6

		Government employ…….. 7 Private employ…….. 8 House servant…… 9 No response…….. 99 Other (specify)…….89
108	What is your monthly income?	……ETB No income …….. 1 Other (specify)…….89
109	How many Alive children do you have currently?	None……1 1-2……..2 Above 2……3 Other (specify)…….89

Part – II: Information on contraceptive use and desire

201	Have you (your partner) ever used FP method before HIV diagnosis?	Yes ……1 No ……2 Don't remember …….3 Other (specify)…….89
202	If yes for Q 201 specify the method you or your partner used?	Abstained from sex …….. 1 condom…… 2 Pills (OCP)…….. 3 Injectables …… 4 IUD ……5 Implants ……..…….. 6 Tubal ligation/ vasectomy…….. 7 Calendar method……8 Other (specify)……89
203	Have you (your partner) ever used FP method after HIV diagnosis?	Yes ……1 No ……2 Don't remember …….3 Other (specify)…….89
204	If yes for Q 203, specify the method you or your partner used? (more than one answer is possible)	Abstained from sex …….. 1 condom…… 2 Pills (OCP)…….. 3

		Injectables …… 4 IUD ……5 Implants ……..…….. 6 Tubal ligation/ vasectomy…….. 7 Calendar method……8 Other (specify)……89
205	Are you/your partner using FP method currently (during the study period)?	Yes ……1 No ……2 Other (specify)…….89
206	If yes for Q 205, specify the method you are using? (more than one answer is possible)	Abstained from sex …….. 1 condom…… 2 Pills (OCP)…….. 3 Injectables …… 4 IUD ……..…5 Implants ……..…….. 6 Tubal ligation/ vasectomy…….. 7 Calendar method……8 Other (specify)……89
207	If the answer for Q 205 is No, why don't you/ your partner want to use FP?	Want to have child……1 Fear that taking both ARV drugs and FP drugs together can cause more harm to health……..2 Current pregnancy……..3 My relegion doesn't allow using ……..4 My partner don't want to use……5 Other (specify)……89
208	If yes for Q 205, why do you choose the current FP method	Health professional advice …….. 1 Because it is suitable to my health…… 2 From my friends experience and advice…….…….. 3 Other (specify)……89
209	If the answer for Q 205 is No, would you like to use FP method in the future?	Yes ……1 No ……2 Other (specify)…….89
210	If yes for Q 209, specify the method you intended to use?	Abstinence from sex …….. 1 condom……..…… 2 Pills (OCP)……... 3

		Injectables …… 4 IUD ……5 Implants ……..…….. 6 Tubal ligation/ vasectomy…….. 7 Calendar method……..8 Other (specify)……89
211	For those who are using FP service currently, where do you get FP service?	At the same facility where I do chronic care follow up……..1 In other government health facility……2 In private health facility…….3 I am using abstinence……4 Other (specify)……..89
212	For those who are using FP service currently, from Which unit do you get the FP services?	ARV treatment units……..1 FP unit……2 Counseling and testing unit……3 I am using abstinence……4 Other (specify)……..89
213	For those who are using FP service currently, where do you prefer to get FP service?	Government health facilities……..1 private health facilities …….2 NGO facilities……3 I am using abstinence……4 Other(specify)……..89
214	For those who are using FP services currently, Which units do you prefer to get FP services?	ARV treatment units……..1 FP unit……2 Counseling unit……3 Other (specify)……..89
215	Most FP methods are safe for use by peoples who are HIV positive. Would you say that you….. (Read each option 1-4) with this statement?	Strongly agree……1 Somewhat agree……..2 Somewhat disagree.……3 Strongly disagree……4 Don't know …… 98 No response……. 99
216	Have you experienced pregnancy after you know your test result of	Yes …….1 No ……2

	being positive for HIV?	Don't know …… 98 No response……. 99 Other (specify)……..89
217	If yes, to Q216 how was the pregnancy?	It was safe, term delivery……1 It was preterm delivery…….2 It was spontaneous abortion……..3 It ended with medical abortion……..4 Other (specify)…….89
218	If the answer to Q217 is yes, what have you done to prevent transmission of HIV from mother to child?	ANC follow up and my baby and myself took ART drugs……1 Nothing done……...2 No response…….99 Others (specify)…….89
219	What was the sero status of your baby?	Positive for HIV test…….1 Negative for HIV test……2 Not tested yet……3 Waiting for the test result……4 No response…….99 Others (specify)…….89

Part – III: information on knowledge and attitude of MTCT and PMTCT

301	Does HIV transmit from infected mother to child?	Yes …….1 No ……2 Don't know …… 98 Other (specify)…….89
302	If yes to Q301, when does HIV transmission occur from the mother to the child? (more than one answer is possible)	During pregnancy……1 During labor and delivery……..2 Through breast feeding……..3 Don't know …… 98 No response……. 99 Other (specify)…….89
303	If yes to Q301, from where did you get the information about mother to child transmission of HIV infection?	Mass media……1 Health care provider……..2 From home based care providers…….3

		From friends…….4 Other (specify)…….89
304	How can HIV positive woman reduce the risk of passing HIV onto her baby during pregnancy, child birth or breast feeding? [Do not read the list. Check all that apply. Probe: anything else.]	Taking ARV drugs to prevent HIV transmission to the baby……1 Delivering a baby at health facility/with a skilled birth attendant(not TBA)……2 By giving formula feeding……..3 Exclusive breast feeding for six months then immediate weaning…….4 Don't know …… 98 Other (specify)…….89
305	Is there any medication, which may help to prevent mother to child HIV transmission?	Yes …….1 No ……2 Don't know …… 98 Other (specify)…….89
306	If yes to Q305, how much do you think is the risk of HIV infection from mother to the child, if the mother does not take any preventive medication?	All children born to infected mother will acquire the infection…….1 About one third of the children acquire the infection ……..2 It will not be transmitted to any…….3 Don't know……98 Other (specify)…….89
307	If yes, Do you think medication provided to reduce mother to child transmission actually reduce the transmission?	Yes …….1 No ……2 Don't know …… 98 Other (specify)…….89

Part – IV: information on HIV/AIDS and treatment conditions

401	How long has it been since you are diagnosed with HIV?	…….year/s ……month/s Other (specify)…….89
402	Have you started to take ARV treatment?	Yes …….1 No ……2
403	If yes, to Q402 when did you start receiving ARV treatment?	Before …….year/s ……month/s Other (specify)…….89
404	In your opinion, how is your health status after you start taking ART?	There is improvement……..1 No improvement……2 It is getting worsen…….3
405	Did your counselor/ ART provider/ FP provider discuss about child bearing and FP?	Yes …….1 No ……2
406	If yes, to Q405 Did your counselor/ ART provider/ FP provider adequately cover issues like child bearing, sexuality and FP?	Yes …….1 No ……2
407	Would you like to discuss with your counselor/ ART provider/ FP provider about child bearing, sexuality and FP in advance?	Yes …….1 No ……2

Part – V: information on reproductive characteristics and sexuality

501	Have you had sexual intercourse in the past six months?	Yes …….1 No ……2 I Don't remember……..3 No response……. 99 Other (specify)…….89
502	When was the last time you had sexual encounter? (read the options from 1-6)	Within past week……1 Within past month…….2 Within 1-12 months ago……..3 Greater 1 years ago……...4 Never……..5 I Don't remember……..6

		Other (specify)…….89
503	If yes to Q501, have you used condom?	Yes …….1 No ……2 I Don't remember……..3 Other (specify)…….89
504	If yes to Q503, why do you use condom?	To prevent pregnancy……..1 Because my partner is HIV negative, in order to prevent HIV transmission…….2 To prevent re-infection……..…….3 Other (specify)…….89
505	If no to Q503, why did not you use condom?	I want to have children…….1 My religion doesn't allow me to do so……2 My partner don't want to use……3 Other (specify)…….89
506	Did you disclose your sero status to your current partner?	Yes …….1 No ……2 I Don't have partner……..3
507	Does your current partner have HIV test?	Yes …….1 No ……2 I Don't have partner ……..3 I don't know……..98
508	If yes, what was her/his result	Positive……..1 Negative…….2 I don't know……..98 No response……. 99

Thank you!!!!!!

Annex 2: Amharic version consent form and questionnaire

ፈቃደኛነት መጠየቂያ ቅጽ

ስሜ……ይባላል፡፡ እኔ ከጎንደር ዩኒቨርስቲ ና ከአዲስ ኮንትኔንታል የህብረተሰብ ጤና አጠባበቅ ኢንስቲትዩት የጥናት ቡድን ጋር አብሬ እየሰራሁ ነው፡፡ አሁን በ…… ጤና ጣቢያ የጸረ ኤች አይ.ቪ/ኤድስ ህክምና መሰጫ ክፍል ተከታታይ ህክምና የሚያደርጉ ከኤች.አይ.ቪ ቫይረስ ጋር የሚኖሩ ሰዎችን የመውለድና የቤተሰብ ምጣኔ አገልግሎት ፍላጎታቸውን ለማጥናት ቃለ መጠይቅ እያደረግን ነው፡፡ ይህ ጥናት ከኤች.አይ ቪ ቫይረስ ጋር ለሚኖሩና የጸረ ኤች.አይ.ቪ/ኤድስ ህክምና ክትትል ለሚያደርጉ ሰዎች የወሊድና የመከላከያ አገልግሎት አሰጣጥ ላይ ለውጥ ያመጣል ብለን እናምናለን፡፡ ስምዎ በዚህ መጠይቅ ውስጥ የማይጠቀስ መሆኑንና በቃለ መጠይቁ የሚሰጡን መረጃ ሁሉ በሚስጥር ተይዞ ለጥናት አልግሎት ብቻ የሚውል መሆኑን ላረጋግጥልዎ እወዳለሁ፡፡ እርስዎ በዚህ ጥናት ላይ የመሳተፍ፣ ያለመሳተፍ ወይንም በማንኛውም ወቅት ቃለ መጠጥይቁን የማቋረጥ ሙሉ መብት አለዎት፡፡ ነገር ግን እርስዎ በጥናቱ ተሳትፈው የሚሰጡን መረጃ ጥናቱን ውጤታማ ለማድረግ እና ከኤች.አይ.ቪ ቫይረስ ጋር ለሚኖሩ ሰወች የወሊድና የቤተብ ምጣኔ አገልግሎት አሰጣጥ ላይ ለውጥ ለማምጣት ከፍተኛ ጠቀሜታ አለው፡፡

በጥናቱ ለመሳተፍ ፈቃደኛ ነዎት?

1. **አዎን** 2. **አይደለሁም**

መልሱ አዎን ከሆነ አመስግነው ከዚህ በታች የተጻፈውን አንብበው ከአስፈረሙ በኋላ ቃለ መጠይቁን ያካሂዱ፡ ፡ መልሱ አይደም ከሆነ አመስግነው ወደ ሌላ ተጠያቂ ይለፉ፡፡

ግለሰቡን በመጠይቁ ለማሳተፍ ምንም አይነት ማስገዳጃ ወይንም ጫና መደረግ የለበትም፡፡

የጥናቱ አላማና የመረጃው አሰባሰብ ሂደቱ ከተገለጸለኝ በኋላ ለዚህ መጠይቅ የማውቀውንና የምችለውን መልስ በመስጠት ለጥናቱ ተባባሪ ለመሆን ፈቃደኝነቴን በፊርማዬ አረጋግጣለሁ፡፡

የተጠያቂው መለያ ቁጥር …… ፊርማ……..

የጠያቂው ስም……ፊርማ……

የጤና ጣቢያ ስም…….. የጤና ጣቢያ ኮድ……..

ቃለ መጠይቁ የተካሄደበት ቀን…….ወር…….2003 ዓ.ም

የገምጋሚው ኮድ……ስም…….ፊርማ……..

የተሟላ……..1 ያልተሟላ……..2

ለበለጠ መረጃ ጥናት አጥኚውን በሚከተለዉ አድራሻ ማግኘት ይችላሉ፡፡

ታሪኩ ብርሃኑ

ስልክ ቁጥር፡ ሞባይል 0911770207

ፖ.ሳ.ቁጥር፡ 1800056 **አ.አ/ኢትዮጲያ**

የቃለመጠይቅ ቅጽ

በጎንደር ዩኒቨርስቲ ና በአዲስ ኮንቲኔንታል የህብረተሰብ ጤና አጠባበቅ ኢንስቲትዩት ከኤች.አይ.ቪ ቫይረስ ጋር የሚኖሩና በአዲስ አበባ የጸረ ኤች.አይ.ቪ/ኤድስ የህክምና መስጫ ጣቢያዎች ተከታታይ ህክምና የሚያደርጉ ሰዎች የቤተሰብ ምጣኔ አገልግሎት ፍላጎታቸውን እና እየተጠቀሙ መሆናቸውን ለማጥናት የተዘጋጀ መጠይቅ፡፡

ክፍል አነድ-መረጃ ስለ ማህበራዊ ሁኔታ

ተ.ቁ	ጥያቄዎች	መልስ ሊሆኑ የሚችሉ ዝርዝሮች
101	እድሜዎ ስንት ነው?	……አመት/እድሜ በሙሉ አመት ይገለጽ/
102	ፆታ	ወንድ ……..1 ሴት ……2
103	ሀይማኖትዎ ምንድን ነው?	ኦርቶዶክስ……..1 ሙስሊም……..2 ፕሮቴስታንት…….3 ካቶሊክ……4 ሌላ ካለ ይገለጽ…….89
104	የትምህርት ደረጃ	ማንበብና መጻፍ የሚችል…….1 ማንበብና መጻፍ የማይችል……2 የመጀመሪያ ደረጃ…….3 ሁለተኛ ደረጃ……..…4 ኮሌጅና ከዛ በላይ…….5 ሌላ ካለ ይገለጽ……...89
105	ብሄርዎ ምንድን ነው?	ኦሮሞ…….1 አማራ……2 ጉራጌ……3 ትግሬ……4 ሌላ ካለ ይገለጽ…….89
106	በአሁኑ ወቅተ የጋብቻ ሁኔታዎ እንዴት ነው?	ያገቡ…….1 ያላገቡ…..2 ባል የሞተባቸው……..3 የተፋቱ……4 ያልተጋቡ ጥንዶች/የጸታ ጓደኛ ያላቸው…5 መልስ የለም….99 ሌላ ካለ ይገለጽ…..89
107	በአሁኑ ወቅት ያሉበት የስራ ሁኔታ ምንድን ነው?	ስራ የሌለው……..1 ተማሪ……2 የቤት እመቤት……..3 የቀን ሠራተኛ……..4 ነጋዴ……..5 የቡና ቤት ሠራተኛ…….6 የመንግስት ሠራተኛ……..7 የግል ሠራተኛ……..8 የቤት ሰራተኛ…….9 መልስ የለም…….99 ሌላ ካለ ይገለጽ……..89

108	ጠቅላላ የወር ገቢዎት ስንት ነው?	……የኢ.ት ብር ገቢ የሌለው ……..1 ሌላ ካለ ይገለጽ ……..89
109	በአሁኑ ጊዜ በህይወት ያሉ ምን ያህል ልጆች አሉዎት?	ምንም በህይወት ያለ ልጅ የለኝም….1 1-2……2 ከ2 በላይ……..3 ሌላ ካለ ይገለጽ……89

ክፍል ሁለት መረጃ ስለ ቤተሰብ ምጣኔ አጠቃቀም ምርጫና ፍላጎት

201	የኤች .አይ.ቪ ኤድስ የደም ምርመራ ውጤትዎትን ከማወቅዎ በፊት እርስዎ/የትዳር/የጾታ ጓደኛዎ የቤተሰብ ምጣኔ አልግሎት ተጠቅመው ያውቃሉ?	አዎን……1 አልተጠቀምንም ……2 አላስታውስም…….3 ሌላ ካለ ይገለጽ……89
202	ለጥያቄ ቁጥር 201 መልሱ አዎን ከሆነ የትኛውን የወሊድ መከላከያ አይነት ነበር የተጠቀሙት? /ከአንድ መልስ በላይ መመለስ ይቻላል/	የግብረ ስጋ ግንኙነት አለማድረግ/መታቀብ ……1 ኮንዶም ……2 የወሊድ መቆጣጠሪያ እንክብል…….3 በመርፌ የሚሰጥ የወሊድ መቆጣጠሪያ ……..4 በማህጸን የሚገባ የወሊድ መቆጣጠሪያ…5 በክንድ የሚቀበር የወሊድ መቆጣጠሪያ……..6 መሃጸን ማስቋጠር/የዘር ፍሬን ማስቋጠር….7 በቀን አቆጣጠር ዘዴ በመጠቀም…….8 ሌላ ካለ ይገለጽ……89
203	የኤች.አይ.ቪ ኤድስ የደም ምርመራ ውጤትዎን ካወቁ በኋላ እርስዎ/የትዳር/የጾታ ጓደኛዎ የቤተሰብ ምጣኔ አገልግሎት ተጠቅመው ያውቃሉ?	አዎን……1 አልተጠቀምንም ……2 አላስታውስም…….3 ሌላ ካለ ይገለጽ……89
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303	የኤች አይ ቪ ኤድስ ከእናት ወደ ልጅ መተላለፉን በተመለከተ መረጃ ከየት ነው ያገኙት?	ከመገናኛ ብዙሃን ….1 ከጤና ባለሞያዎች …..2 ከቤት ለቤት እንክብካቤ ሰጭዎች ….3 ከጓደኛች …….4 ሌላ ካለ (ይገለጽ) ….89
304	ኤች አይ. ቪ.. ቫይረስ በደሚ ውስጥ ያለባት እናት ቫይረሱ ከእሷ ወደ ልጅዋ በእርግዝና፣በወሊዲና ጡት በምታጠባበት ወቅት እንዴት አድርጋ እንዳይተላለፍ መቀነስ ትችላለች? (ከዝርዝሩ ያመሳክሩ ሌላስ በማለት በመጠየቅ/	መድሀኒት በመውሰድ ኤች አይ ቪ ወደ ሕፃኑ እንዳተላለፍ ……..1 በጤና ተቋማት በመውለድ/በባለሙያ አዋላጆ/ ከልምድ አዋላጆች ውጭ ……2 ታሸገው የተዘጋጁ ወተቶችን በመመገብ ……..3 የእናት ጡት ወተት ብቻ ለ6 ወራት በመመገብና ከዚያ ወዲውኑ አቋርጦ ተጨማሪ ምግብ መጀመር ……4 አላውቅም …….98 ሌላ ካለ (ይገለጽ) …..89
305	የኤች አይ ቪ ኤድስ ቫይረስ ከእናት ወደ ልጅ እንዳይተላለፍ ለማድረግ የሚረዳ መድሃኒት /ህክምና/ አለ?	አዎን ……1 የለም …..2 አላውቅም…….98 ሌላ ካለ (ይገለጽ) …..89
306	በኤች አይ ቪ የተያዘች እናት ምንም መከላከያ መድሀኒት ሳትጠቀም ቫይረሱን ለልጅዋ የማስተላለፍ እድል ምን ያህል ነው ብለው ያስባሉ?	በኤች አይ ቪ የተያዘች እናት የምትወልዳቸው ልጆች በመሉ በቫይረሱ ይጠቃሉ ……1 ከምትወልዳቸው ልጆች በከፊል በቫይረሱ ይጠቃሉ ……2 ምንም አይተላለፍም ……3 አላውቅም …….98

		ሌላ ካለ (ይገለጽ) ……..89
307	ከእናት ወደ ልጅ የኤች.አይ.ቪ ኤድስ ቫይረስ እንዳይተላለፍ ለማድረግ የሚደረገው ህክምና የኤች አይ ቪ ኤድስ ቫይረስ ከእናት ወደ ልጅ መተላለፉን በእርግጠኝነት ይቀንሳል ብለው ያምናሉ?	አዎን …..1 አላምንም …….2 አላውቅም ……98 መልስ የለም ……99 ሌላ ካለ (ይገለጽ) ……89

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401	የኤች አይ ቪ ኤድስ ቫይረስ እንዳለበዎ ተመርምረው ካወቁ ምን ያህል ጊዜ ሆነዎት?	……. ወር……..ዓመት ሌላ ካለ (ይገለጽ) ……89
402	የጸረ ኤች አይ ቪ ኤድስ መድሃኒት መጠቀም ጀምረዋል?	አዎ …….1 አልጀመርኩም …..2 ሌላ ካለ (ይገለጽ) 89
403	ለጥያቄ 402 መልሱ አዎን ከሆነ መቼ ነው የጸረ ኤች አይ ቪ ኤድስ መድሃኒት መጠቀም የጀመሩት?	……. ወር……..ዓመት ሌላ ካለ (ይገለጽ) ……89
404	በእርስዎ አመለካከት/ምዘና የጸረ ኤች አይ ቪ ኤድስ መድሃኒት መጠቀም ከጀመሩ ጀምሮ በአጠቃላይ የጤና ሁኔታ እንዴት ነው?	ተሻሽሏል …..1 ምንም ለውጥ የለውም ….2 እየተባባሰ ነው ……3 ሌላ ካለ (ይገለጽ)……89
405	ከአማካሪዎ/ከጸረ ኤች አይ ቪ ኤድስ ህክምና ሰጭ ሀኪምዎ ጋር ስለ ልጅ መውለድና የቤተሰብ ምጣኔ አገልግሎት ተወያይተው ያውቃሉ?	አዎን …..1 አላውቅም …….98 ሌላ ካለ ይገለጽ ……89
406	ለጥያቄ ቁጥር 405 መልሱ አዎን ከሆነ ከአማካሪዎ ጋር ስለ ልጅ መውለድና የቤተሰብ ምጣኔ አገልግሎት ጉዳዮች ላይ ያደረጉት ውይይት በቂ ነው ብለው ያስባሉ?	አዎን …..1 አይደለም …….2 ሌላ ካለ (ይገለጽ) ……89
407	ከአማካሪዎ/ከጸረ ኤች አይ ቪ ኤድስ ህክምና ሰጭ ሀኪምዎ ጋር ስለ ልጅ መውለድና የቤተሰብ ምጣኔ አግልግሎት በበለጠ መወያየት ይፈልጋሉ?	አዎን …..1 አልፈልግም …….2 ሌላ ካለ (ይገለጽ) ……89

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501	ባለፉት ስድስት ወራት የግብረ ስጋ ግንኙነት አድርገው ያውቃሉ?	አዎን …..1 አላደረግሁም …….2 አላስታውስም ……3 ሌላ ካለ (ይገለጽ) ……89
502	መቼ ነው ለመጨረሻ ጊዜ ወሲብ የፈጸሙት (1-6 ያሉትን አማራጮች ያንብቡ)	ባለፈው ሳምንት ውስጥ …….1 ባለፈው ወር ውስጥ ……2 ባለፉት ከ1-12 ወራት ውስጥ …..3 ከአንድ ዓመት በፊት …..4 በፍጹም ……5 አላስታውስም ……..6 ሌላ ካለ (ይገለጽ) ……89
503	ለጥያቄ ቁጥር 501 መልሱ አዎን ከሆነ ኮንዶም ተጠቅመው ነበር?	አዎን ……1 አልተጠቀምኩም ….2 አላስታውሰውም ……3 ሌላ ካለ (ይገለጽ) ……89
504	ለጥያቄ ቁጥር 503 መልሱ አዎን ከሆነ ኮንዶም የተጠቀሙት ለምንድነው?	ርግዝናን ለመከላከል ….1 የትዳር/የጾታ ጓደኛዬ ከኤች አይ ቪ ቫይረስ ነፃ ስለሆነ እንዳይተላለፍ …….2 ለተጨማሪ ኤች አይ ቪ ቫይረስ ላለመጋለጥ ……3 ሌላ ካለ (ይገለጽ) ……89
505	ለጥያቄ ቁጥር 503 መልሱ አልተጠቀምኩም ከሆነ ለምንድን ነዉ ኮንዶም ያልተጠቀሙት?	ልጅ እንዲኖሮኝ ስለምፈልግ …….1 ሃይማኖቴ ስለማይፈቅድ……2 ሌላ ካለ (ይገለጽ) …….89
506	የኤች አይ ቪ ኤድስ የደም ምርመራ ውጤትዎን ለ አሁኑ ትዳር/ጾታ ጓደኛዎ አሳውቀዋል?	አዎን ……1 አላሳወቅሁም …..2 የትዳር/የጾታ ጓደኛ የለኝም ……3 ሌላ ካለ (ይገለጽ) ….89
507	የአሁኑ ትዳር/የጾታ ጓደኛዎ የኤች.አይ.ቪ.ኤድስ የደም ምርመራ አድርገዋል?	አዎን ……1 አላደረገም …..2

		የት·ዳር/የጾታ ጓደኛ የለኝም ……3 **አላውቅም** ……98 **ሌላ ካለ** (**ይገለጽ**)….89
508	**ለጥያቄ** 507 **መልሱ አዎን ከሆነ የኤች አይ ቪ ኤድስ የደም ምርመራ ውጤታቸው ምን ነበር**?	**ፖዝቲቭ/ቫይረሱ ያለባቸው** ….1 **ኔጋቲቭ/ከቫይረሱ ነፃ** ….2 **አላውቅም** ….98 **ሌላ ካለ** (**ይገለጽ**) ….89

በጣም አመሰግናለሁ!!!

Annex-3: Possible conceptual frame work for factors associated with FP use among PLHIV